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Practitioner's Docket No. 915-003.006

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Janne KALLIO et al.
Application No.: 10 / 070,411 Group No.: 2687
Filed: October 9, 2002 Examiner: Marcos L. TORRES
For: Network Frequency Setting



Mail Stop Appeal Brief—Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF
(PATENT APPLICATION—37 C.F.R. § 41.37)

NOTE: The phrase "the date on which" an "appeal was taken" in 35 U.S.C. 154(b)(1)(A)(ii) (which provides an adjustment of patent term if there is a delay on the part of the Office to respond within 4 months after an "appeal was taken") means the date on which an appeal brief under § 1.192 (and not a notice of appeal) was filed. Compliance with § 41.37 requires that: 1. the appeal brief fee (§ 41.20(b)(2)) be paid (§ 41.37(a)(2)); and 2. the appeal brief complies with §§ 41.73(c)(i)-(x). See Notice of September 18, 2000, 65 Fed. Reg. 56366, 56385-56387 (Comment 38).

1. Transmitted herewith, in triplicate, is the APPEAL BRIEF in this application, with respect to the Notice of Appeal filed on March 10, 2006.

NOTE: Appellant must file a brief under this section within two months from the date of filing the notice of appeal under § 41.31. 37 CFR 41.(a)(1). The brief is no longer required in triplicate. The former alternative time for filing a brief (within the time allowed for reply to the action from which the appeal was taken) has been removed. Appellant must file within two months from the notice of appeal. See Notice of August 12, 2004, 69 FR 49960, 49962.

CERTIFICATION UNDER 37 C.F.R. §§ 1.8(a) and 1.10*

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Lisette Ramos

Date: June 13, 2006

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* Only the date of filing (§ 1.6) will be the date used in a patent term adjustment calculation, although the date on any certificate of mailing or transmission under § 1.8 continues to be taken into account in determining timeliness. See § 1.703(f). Consider "Express Mail Post Office to Addressee" (§ 1.10) or facsimile transmission (§ 1.6(d)) for the reply to be accorded the earliest possible filing date for patent term adjustment calculations.

2. STATUS OF APPLICANT

This application is on behalf of

- ☒ other than a small entity.
☐ a small entity.

A statement:

- ☐ is attached.
☐ was already filed.

3. FEE FOR FILING APPEAL BRIEF

Pursuant to 37 C.F.R. § 41.20(b)(2), the fee for filing the Appeal Brief is:

- ☐ small entity \$250.00
☒ other than a small entity \$500.00

Appeal Brief fee due \$ 500.00

4. EXTENSION OF TERM

NOTE: 37 C.F.R. § 1.704(b) ". . . an applicant shall be deemed to have failed to engage in reasonable efforts to conclude processing or examination of an application for the cumulative total of any periods of time in excess of three months that are taken to reply to any notice or action by the Office making any rejection, objection, argument, or other request, measuring such three-month period from the date the notice or action was mailed or given to the applicant, in which case the period of adjustment set forth in § 1.703 shall be reduced by the number of days, if any, beginning on the day after the date that is three months after the date of mailing or transmission of the Office communication notifying the applicant of the rejection, objection, argument, or other request and ending on the date the reply was filed. The period, or shortened statutory period, for reply that is set in the Office action or notice has no effect on the three-month period set forth in this paragraph."

NOTE: The time periods set forth in 37 C.F.R. § 1.192(a) are subject to the provision of § 1.136 for patent applications. 37 C.F.R. § 1.191(d). See also Notice of November 5, 1985 (1060 O.G. 27).

NOTE: As the two-month period set in § 1.192(a) for filing an appeal brief is not subject to the six-month maximum period specified in 35 U.S.C. § 133, the period for filing an appeal brief may be extended up to seven months. 62 Fed. Reg. 53,131, at 53,156; 1203 O.G. 63, at 84 (Oct. 10, 1997).

The proceedings herein are for a patent application and the provisions of 37 C.F.R. § 1.136 apply.

(complete (a) or (b), as applicable)

- (a) ☒ Applicant petitions for an extension of time under 37 C.F.R. § 1.136 (fees: 37 C.F.R. § 1.17(a)(1)-(5)) for the total number of months checked below:

Extension (months)	Fee for other than small entity	Fee for small entity
<input checked="" type="checkbox"/> one month	\$ 120.00	\$ 60.00
<input type="checkbox"/> two months	\$ 450.00	\$ 225.00
<input type="checkbox"/> three months	\$ 1,020.00	\$ 510.00
<input type="checkbox"/> four months	\$ 1,590.00	\$ 795.00
<input type="checkbox"/> five months	\$ 2,160.00	\$1,080.00

Fee: \$ 120.00

If an additional extension of time is required, please consider this a petition therefor.

(check and complete the next item, if applicable)

- ☐ An extension for _____ months has already been secured, and the fee paid therefor of \$ _____ is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request \$ 120.00

or

- (b) ☐ Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

5. TOTAL FEE DUE

The total fee due is:

Appeal brief fee \$ 500.00

Extension fee (if any) \$ 120.00

TOTAL FEE DUE \$ 620.00

6. FEE PAYMENT

- ☒ Attached is a ☒ check ☐ money order in the amount of \$ 620.00
☒ Authorization is hereby made to charge the amount of \$ DEFICIENCIES ONLY
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- ☐ Charge any additional fees required by this paper or credit any overpayment in the manner authorized above.
☐ A duplicate of this paper is attached.

7. FEE DEFICIENCY

NOTE: If there is a fee deficiency and there is no authorization to charge an account, additional fees are necessary to cover the additional time consumed in making up the original deficiency. If the maximum six-month period has expired before the deficiency is noted and corrected, the application is held abandoned. In those instances where authorization to charge is included, processing delays are encountered in returning the papers to the PTO Finance Branch in order to apply these charges prior to action on the cases. Authorization to change the deposit account for any fee deficiency should be checked. See the Notice of April 7, 1986, 1065 O.G. 31-33.

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AND/OR

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Date: June 13, 2006

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SIGNATURE OF PRACTITIONER

Keith R. Obert

(type or print name of practitioner)

Ware, Fressola, Van Der Sluys & Adolphson
Bradford Green, Building 5

P.O. Address

755 Main St., P.O. Box 224
Monroe, CT 06468-0224



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

First named inventor: Janne KALLIO et al.
Serial No.: 10/070,411
Filed: October 9, 2002
Title: Network Frequency Setting
Group Art Unit: 2687
Examiner: Marcos L. Torres

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COMMISSIONER FOR PATENTS
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ALEXANDRIA, VA 22313-1450

BRIEF FOR APPELLANT

Sir:

This is a brief for an appeal from an Office Action mailed November 17, 2005, made final, and a subsequent Advisory Action, mailed February 16, 2006, maintaining the rejections in response to a request for reconsideration mailed January 17, 2006.

This brief follows a Notice of Appeal mailed March 10, 2006.

For all of the reasons discussed below, it is the belief of the undersigned that the claims of the application do distinguish the invention from the art relied on by the Examiner. Nevertheless, the undersigned is always willing to discuss possible amendments to any claims to clarify or resolve any issues related to claim interpretation that may remain after the Examiner has reviewed applicant's brief. The Examiner is strongly encouraged to call the undersigned to discuss making any such amendments.

A petition and fee requesting a one month extension of time to file the Appeal Brief pursuant to 37 C.F.R. 1.136(a) is enclosed.

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02 FC:1251

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I. REAL PARTY IN INTEREST

The real party in interest in this appeal is Nokia Corporation, a corporation organized under the laws of Finland.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

III. STATUS OF CLAIMS

Claims 1-10, 13-28 and 30 are pending in the application, and all claims are rejected. Claims 11 and 12 are cancelled. Claim 29 is cancelled in an amendment submitted along with this brief. The rejections to claims 1-10, 13-28 and 30 are being appealed.

IV. STATUS OF AMENDMENTS

Applicant's last response was submitted on January 17, 2006, and was not entered. Applicant has submitted an amendment along with this appeal brief canceling claim 29 pursuant to 37 C.F.R. § 41.33(b)(1).

V. SUMMARY OF CLAIMED SUBJECT MATTER

The present invention is directed to synchronization in a communications network. Independent claim 1 recites a frequency setting unit for a radio telecommunication network wherein base stations transmit an accurately set frequency derived from a reference signal. *See* page 3, lines 15-24. The frequency setting unit recited in claim 1 comprises a radio receiver for receiving signals at a first frequency from a first base station located in a first radio telecommunication network. *See* page 7, lines 12-17; Figure 2(61a, 62a). The frequency setting unit also comprises an analysis apparatus for analyzing the received signals to determine the first frequency of the first base station. *See* page 7, lines 23-25. The frequency setting unit of claim 1 further comprises a frequency setting apparatus. The frequency setting apparatus is responsive to the analysis apparatus and coupled to a second base station transmitting at a second frequency, which is located in a second radio telecommunication network. The frequency setting apparatus is for adjusting the second frequency with the aim of establishing a desired relationship between the second frequency and the first frequency. *See* page 7, lines 25-27.

Independent claim 17 recites a method for frequency setting in a wireless telecommunications network such that base stations transmit at an accurately set frequency derived from a reference signal. *See* page 3, line 29—page 4, line 4. A first base station transmits signals at a first frequency, and a second base station in a different radio telecommunications network from the first base station transmits signals at a second frequency. The method recited in claim 17 comprises receiving signals in a radio receiver from the first base station, analyzing the received signals in an analysis apparatus to determine the first frequency, and adjusting the second frequency in a frequency setting unit responsive to the analysis apparatus and coupled to the second base station with the aim of establishing a desired relationship between the second frequency and the first frequency. *See* page 7, lines 24-27.

Independent claim 20 recites an expansion card for a radio telecommunications network. The expansion card recited in claim 20 comprises a receiver for receiving signals from a first base station located in a first radio telecommunications network, an analysis apparatus for analyzing the received signals to determine a first frequency, and a frequency setting unit responsive to the analysis apparatus and coupled to a second base station, which is located in a second radio telecommunications network. *See* page 9, lines 29-32. The frequency setting unit of the expansion card recited in claim 20 is configured to adjust a second frequency with the aim of establishing a desired relationship between the second and the first frequency.

Independent claim 22 recites a frequency setting unit for a radio telecommunications network. The frequency setting unit comprises means for receiving signals having a first frequency from a first base station located in a first radio telecommunications network. *See* page 7, lines 11-17 (the radio receiver of each base station controller (BSC) is located where it can receive radio transmissions from a base station that is under the control of a BSC that is higher in the hierarchy than the reference BSC). The frequency setting unit further comprises means for analyzing the received signals to determine the first frequency. *See* page 7, lines 24-25 (signals are analyzed by analysis unit to determine their frequency). The frequency setting unit recited in claim 22 also comprises means for adjusting a second frequency with the aim of establishing a desired relationship between the second frequency and the first frequency. *See* page 7, lines 25-27 (the result from the analysis unit is used by the frequency setting unit to set the frequencies of the base stations).

Independent claim 23 recites a base station for a radio telecommunications network. The base station comprises a radio receiver for receiving signals having a first frequency from a reference base station located in a different radio telecommunication network, an analysis apparatus for analyzing the received signals to determine the first frequency, a frequency setting unit responsive to the analysis apparatus for adjusting a second frequency with the aim of establishing a desired relationship between the second frequency and the first frequency and for sending a clock-setting signals for a clock. *See* page 9, line 29-32. The base station recited in claim 23 also comprises a clock for providing a clock signal for the base station, the clock being set according to the clock-setting signal from the frequency setting unit. *See* page 7, lines 27-30.

Independent claim 24 recites a network element for controlling base stations in a radio telecommunications network, wherein the base stations transmit at an accurately set frequency derived from a reference signal. *See* page 6, lines 7-10. The network elements comprises a radio receiver for receiving signals having a first frequency from a first reference base station located in a first radio telecommunications network, an analysis apparatus for analyzing the received signals to determine the first frequency, and a frequency setting unit responsive to the analysis apparatus and coupled to a second base station transmitting at a second frequency, which is located in a second radio telecommunications network. The frequency setting unit of the network element is for adjusting the second frequency with the aim of establishing a desired relationship between the second frequency and the first frequency. *See* page 7, lines 24-27.

Independent claim 27 recites a synchronization unit for a radio telecommunications network wherein base stations transmit at an accurately set frequency derived from a reference signal. *See* page 7, lines 2-3. The synchronization unit comprises a radio receiver, an analysis apparatus, and a connection for coupling the synchronization unit to a frequency setting unit responsive of adjusting the frequency of a second base station, located in a second radio telecommunications network. *See* page 7, lines 5-8.

Independent claim 30 recites a system of at least first and second radio telecommunications networks, wherein each base station transmits signals at an accurately set frequency derived from a reference signal. The system recited in claim 30 comprises a radio receiver, an analysis apparatus, and a frequency setting unit. *See* page 6, lines 1-19; Figure 2.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-5, 7-8, 10, 14-17 and 28-30 are rejected under 35 U.S.C. § 103(a) as unpatentable over Soliman (U.S. Patent No. 6,671,291) in view of Bauchot et al. (U.S. Patent No. 6,141,336).

Claims 6 and 9 are rejected under 35 U.S.C. § 103(a) as unpatentable over Soliman in view of Bauchot in further view of Gass et al. (U.S. Patent No. 4,774,704).

Claim 13 is rejected under 35 U.S.C. § 103(a) as unpatentable over Soliman in view of Bauchot in further view of Toda et al. (U.S. Patent No. 5,448,570).

Claims 18 and 26 are rejected under 35 U.S.C. § 103(a) as unpatentable over Soliman in view of Bauchot in further view of Matsuno (U.S. Patent No. 5,613,211).

Claims 19-20 are rejected under 35 U.S.C. § 103(a) as unpatentable over Soliman in view of Bauchot in further view of Lu et al. (U.S. Patent No. 5,761,195).

Claim 21 is rejected under 35 U.S.C. § 103(a) as unpatentable over Soliman in view of Bauchot and Lu in further view of Matsuno.

VII. ARGUMENT

Rejection of claims 1-5, 7-8, 10, 14-17 and 28-30 under § 103 over Soliman in view of Bauchot

Claim 1

At section 8, on page 4 of the final Office Action of November 17, 2005, the Office rejects independent claim 1 as unpatentable over Soliman in view of Bauchot. The Office acknowledges that Soliman fails to disclose or suggest a second base station transmitting at a second frequency, located in a second radio telecommunications network, as recited in claim 1, and relies on Bauchot for this teaching. However, Soliman and Bauchot, alone or in combination, fail to disclose or suggest all of the limitations recited in claim 1, because there is no motivation to combine the teachings of Soliman with the teachings of Bauchot. Therefore, the combination of Bauchot and Soliman to arrive at the limitations disclosed by claim 1 is the result of impermissible hindsight reasoning, and the Office has failed to show a *prima facie* case of obviousness.

On page 2 of the Advisory Action of February 16, 2006 the Office asserts that it would be obvious to combine Soliman and Bauchot because “both references are directed to the same problem of synchronization.” The Office inaccurately characterizes the teachings of Bauchot by asserting that Bauchot is directed to synchronizing timing between different

communication networks citing column 1, lines 9-14. Bauchot is not concerned with synchronizing timing between different networks, but instead provides a delay-oriented scheduling method using the arrival time of data cells to determine when each data cell must be transmitted. *See* Bauchot column 2, lines 55-60. Bauchot provides a “scheduler” that is responsible for scheduling traffic transmitted through the networks by deciding what time a cell will be given to the MAC Protocol Data Unit handler for the next transmission time period. *See* Bauchot column 5, lines 14-19. Bauchot focuses on allocating time slots in which mobile terminals are to transmit or receive, and has nothing to do with synchronizing the timing of different communication networks as asserted by the Office. Therefore, even if Bauchot discloses a second communications network, Bauchot actually teaches away from adjusting a second frequency of a second base station located in a second radio telecommunication network with the aim of establishing a desired relationship between the second frequency and a first frequency of a first radio telecommunication network, as recited in claim 1. This is because Bauchot focuses on using a shared radio channel for both the asynchronous transfer mode network and the synchronous transfer mode network. *See* Bauchot e.g. column 3, lines 58-60; column 4, lines 14-16; column 5, lines 15-17. Therefore, because there is no suggestion or motivation to combine the teachings of Soliman and Bauchot, the Office has relied on impermissible hindsight reasoning and claim 1 is not obvious in view of the cited references.

When making an obviousness determination the invention cannot be evaluated part by part. *Ruiz v. A.B. Chance Co.*, 69 USPQ2d 1686, 1690 (Fed. Cir. 2004). Otherwise an obviousness assessment breaks an invention into its component parts (A+B+C), and finds a prior art reference containing A, another containing B, and another containing C, and on that basis alone declare the invention obvious. *Id.* Using the invention as a roadmap in order to find its components in the prior art is impermissible hindsight reasoning. *Id.*; *see also In re Gorman*, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991) (it is impermissible simply to engage in hindsight reconstruction of the claimed invention using the applicant’s structure as a template and selecting elements from references to fill the gaps). When an invention is contended to be obvious based on a combination of elements across different references, there must be a suggestion, motivation or teaching to those skilled in the art for such a combination. *Barbell Co. v. USA Sports Inc.*, 73 USPQ2d 1225, 1227 (Fed. Cir. 2004).

Applicant respectfully submits that the Office has engaged in impermissible hindsight reasoning by using the applicant’s own disclosure as a blueprint to piece together elements

from the prior art to arrive at the limitations recited in claim 1. *Id.* The Office Acknowledges that Soliman is only concerned with synchronizing timing and frequency in a single communication network, and therefore provides no motivation, suggestion or teaching to combine the cited references.. See Soliman column 1, lines 11-13. As discussed above, there is no motivation to combine the references from Bauchot, because Bauchot actually teaches away from using frequency information from one network to adjust a second network. The Office has merely taken the two networks from Bauchot, and modified Soliman by stating that it would be obvious to implement the teachings of Soliman across two telecommunications networks in order to arrive at the invention recited in claim 1. However, applicant respectfully submits that it would not be obvious for one of skill in the art to produce the claimed invention without the benefit of applicant's own disclosure, and the use of impermissible hindsight reasoning. Therefore, the Office has not demonstrated any motivation to combine the references, and has not properly show a *prima facie* case of obviousness, and therefore applicant respectfully requests that the Board reverse the rejection of claim 1. *In re Rouffet*, 47 USPQ2d 1453, 1458 (Fed. Cir. 1998).

Claims 2-5, 7-8, 10, 14-16

Dependent claims 2-5, 7-8, 10 and 14-16 depend directly or indirectly from independent claim 1, contain all limitations recited therein, and are patentable over the cited references at least in view of their dependencies. See *In re Fine*, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988) (if an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious). Therefore, applicant respectfully requests that the Board reverse the rejections to claims 2-5, 7-8, 10 and 14-16.

Claim 17

Independent claim 17 contains limitations similar to those recited in independent claim 1, and on page 5 of the final Office Action of November 17, 2005 is rejected for the same reasons as claim 1. In particular, claim 17 recites adjusting a second frequency of a second base station in a different telecommunication network from a first base station in a frequency setting unit with the aim of establishing a desired relationship between the second frequency and a first frequency of the first base station. Therefore, for at least the reasons discussed above in relation claim 1, independent claim 17 is not disclosed or suggested by the

cited references, and applicant respectfully requests that the Board reverse the rejection to claim 17.

Claims 22-25 and 27-28

Independent claims 22-24 and 27 contain limitations similar to those recited in independent claim 1, and on page 5 of the final Office Action of November 17, 2005 are rejected for the same reasons as claim 1. Therefore, for at least the reasons discussed above in relation claim 1, independent claim 22-24 and 27 are not disclosed or suggested by the cited references, and applicant respectfully requests that the Board reverse the rejections to claim 22-24 and 27.

Claim 25 depends from claim 24, contains all of the limitations recited therein, and is patentable over the cited references at least in view of its dependencies. *See In re Fine*, 5 USPQ2d at 1600. Therefore, applicant respectfully requests that the Board reverse the rejection to claim 25.

Claim 28 depends from independent claim 27, contains all of the limitations recited therein, and is patentable over the cited references at least in view of its dependency. *See In re Fine*, 5 USPQ2d at 1600. Therefore applicant respectfully requests that the Board reverse the rejection to claims 28.

Claim 30

Independent claim 30 contains limitations similar to those recited in independent claim 1, and on page 5 of the final Office Action of November 17, 2005 is rejected for the same reasons as claim 1. In particular, claim 30 recites a frequency setting unit for adjusting a second frequency of a second base station in a second telecommunication network with the aim of establishing a desired relationship between the second frequency and a first frequency of a first base station in a first telecommunications network. Therefore, for at least the reasons discussed above in relation claim 1, independent claim 30 is not disclosed or suggested by the cited references, and applicant respectfully requests that the Board reverse the rejection to claim 30.

Rejection of claims 6 and 9 under § 103 over Soliman in view of Bauchot and Gass

Claims 6 and 9

At section 9, on page 5 of the final Office Action of November 17, 2005 claims 6 and 9 are rejected over Soliman in view of Bauchot and Gass. Claims 6 and 9 depend directly or

indirectly from independent claim 1, contain all of the limitations recited therein, and are patentable over the cited references at least in view of their dependencies. *See In re Fine*, 5 USPQ2d at 1600. Therefore applicant respectfully requests that the Board reverse the rejections to claims 6 and 9.

Rejection of claim 13 under § 103 over Soliman in view of Bauchot and Toda

Claim 13

At section 10, on page 6 of the final Office Action of November 17, 2005 claim 13 is rejected over Soliman in view of Bauchot and Toda. Claim 13 depends from independent claim 1, contains all of the limitations recited therein, and is patentable over the cited references at least in view of its dependency. *See In re Fine*, 5 USPQ2d at 1600. Therefore applicant respectfully requests that the Board reverse the rejections to claim 13.

Rejection of claims 18 and 26 under § 103 over Soliman in view of Bauchot and Matsuno

Claims 18 and 26

At section 11, on page 6 of the final Office Action of November 17, 2005 claims 18 and 26 are rejected over Soliman in view of Bauchot and Matsuno. Claims 6 and 9 depend directly or indirectly from independent claims, contain all of the limitations recited therein, and are patentable over the cited references at least in view of their dependencies. *See In re Fine*, 5 USPQ2d at 1600. Therefore applicant respectfully requests that the Board reverse the rejections to claims 18 and 26.

Rejection of claims 19-20 under § 103 over Soliman in view of Bauchot and Lu

Claim 20

At section 12, on page 7 of the final Office Action of November 17, 2005 claims 19-20 are rejected over Soliman in view of Bauchot and Lu. Independent claim 20 contains limitations similar to those recited in independent claim 1, with the addition of an expansion card. The Office acknowledges that Soliman fails to disclose or suggest an expansion card, and relies on Lu for this teaching. However, for at least the reasons discussed above in relation to claim 1, Soliman, Bauchot and Lu fail to disclose or suggest all of the limitations recited in claim 20, because there is no motivation to combine the references and arrive at the claimed invention without the use of impermissible hindsight. Therefore, applicant respectfully requests that the Board reverse the rejection to claim 20.

Claim 19 depends from independent claim 1, contains all of the limitations recited therein, and is patentable over the cited references at least in view of its dependency. *See In re Fine*, 5 USPQ2d at 1600. Therefore applicant respectfully requests that the Board reverse the rejections to claim 19.

Claim 21 is rejected under 35 U.S.C. § 103(a) as unpatentable over Soliman in view of Bauchot and Lu in further view of Matsuno.

Claim 21

At section 13, on page 8 of the final Office Action of November 17, 2005 claim 21 is rejected over Soliman in view of Bauchot, Lu and Matsuno. Claim 21 depends from independent claim 20, contains all of the limitations recited therein, and is patentable over the cited references at least in view of its dependency. *See In re Fine*, 5 USPQ2d at 1600. Therefore applicant respectfully requests that the Board reverse the rejections to claim 21.

Conclusion

For at least the reasons discussed above, applicant respectfully submits that the Office has failed to show a prima facie case of obviousness, because there is no motivation to combine the cited references. Therefore, applicant respectfully requests that the Board reverse the rejections to claims 1-10 13-28 and 30.

Respectfully submitted,

June 13, 2006

Date

WARE, FRESSOLA, VAN DER
SLUYS & ADOLPHSON LLP
755 Main Street, P.O. Box 224
Monroe, CT 06468-0224
Tel: (203) 261-1234
Cust. No.: 004955



Keith R. Obert
Registration No. 58,051

CLAIMS APPENDIX

The claims are as follows:

1. (Previously Presented) A frequency setting unit for a radio telecommunications network wherein base stations transmit at an accurately set frequency derived from a reference signal, the frequency setting unit comprising:
 - a radio receiver for receiving signals at a first frequency from a first base station located in a first radio telecommunication network;
 - an analysis apparatus for analysing the received signals to determine the first frequency; and
 - a frequency setting apparatus responsive to the analysis apparatus and coupled to a second base station transmitting at a second frequency, located in a second radio telecommunication network, for adjusting the second frequency with the aim of establishing a desired relationship between the second frequency and the first frequency.
2. (Previously Presented) A frequency setting unit as claimed in claim 1, wherein said reference signal is provided to the first base station by a reference clock where a pulse train is sent to a first controller controlling the first base station.
3. (Previously Presented) A frequency setting unit as claimed in claim 2, wherein said sent pulse train is used by the first controller to derive a set of pulse trains that are sent to said first base station.

4. (Previously Presented) A frequency setting unit as claimed in claim 1, wherein the second base station comprises a clock and the frequency setting unit is capable of transmitting a clock setting signal to the second base station for setting the clock.

5. (Original) A frequency setting unit as claimed in claim 4, wherein the clock setting signal comprises a stream of clock pulses.

6. (Previously Presented) A frequency setting unit according to claim 4, wherein said clock setting signal to the second base station for setting said clock is derived from an internal clock within said second base station.

7. (Previously Presented) A frequency setting unit according to claim 4, wherein said clock setting signal to the second base station for setting said clock is derived straight from the detected frequency of said analysis apparatus.

8. (Previously presented) A frequency setting unit according to claim 1, wherein said desired relationship is such that the second frequency matches the first frequency in an absolute manner.

9. (Previously Presented) A frequency setting unit according to claim 1, wherein said desired relationship is such that the second frequency is a multiple of the first frequency by shifting the frequency of said internal clock within a second controller controlling said base station.

10. (Previously presented) A frequency setting unit according to claim 1, wherein the said signals from the first base station (23) are broadcast signals.

11. (Cancelled)

12. (Cancelled)

13. (Previously Presented) A frequency setting unit as claimed in claim 1, wherein the frequency setting unit is comprised in said second controller controlling said second base station.

14. (Previously Presented) A frequency setting unit as claimed in claim 1, wherein the second base station is connected to the second telecommunications network by means of an asynchronous connection.

15. (Previously Presented) A frequency setting unit as claimed in claim 14, wherein the asynchronous connection is an internet protocol connection.

16. (Previously Presented) A frequency setting unit as claimed in claim 1, wherein at least one of said first and second telecommunications networks is operable according to a global system for mobile communications standard.

17. (Previously Presented) A method for frequency setting in a wireless telecommunications network such that base stations transmit at an accurately set frequency derived from a reference signal, wherein a first base station transmitting signals at a first

frequency, and a second base station transmitting signals at a second frequency, and the first and second base stations are of different radio telecommunications networks; the method comprising the steps of:

receiving signals in a radio receiver from the first base station;
analysing the received signals in an analysis apparatus to determine the first frequency; and
adjusting the second frequency in a frequency setting unit responsive to the analysis and coupled to the second base station with the aim of establishing a desired relationship between the second frequency and the first frequency.

18. (Previously Presented) A frequency setting unit as claimed in claim 1, wherein the frequency setting unit is a Base Station Controller.

19. (Previously Presented) A frequency setting control unit as claimed in claim 1, wherein the frequency control unit is provided on an expansion card.

20. (Previously Presented) An expansion card for a radio telecommunications network wherein base stations transmit at an accurately set frequency derived from a reference signal, the expansion card comprising:

a receiver for receiving signals from a first base station located in a first radio telecommunications network;
an analysis apparatus for analysing the received signals to determine a first frequency;
and
a frequency setting unit responsive to the analysis apparatus and coupled to a second base station, located in a second radio telecommunications network, for adjusting a

second frequency with the aim of establishing a desired relationship between the second frequency and the first frequency.

21. (Previously Presented) An expansion card as claimed in claim 20, wherein the expansion card is adapted to be inserted to a network element responsible of controlling base station operations.

22. (Previously Presented) A frequency setting unit for a radio telecommunications network wherein base stations transmit at an accurately set frequency derived from a reference signal, the frequency setting unit comprising:

means for receiving signals having a first frequency from a first base station located in a first radio telecommunications network;

means for analysing the received signals to determine the first frequency; and

means for adjusting a second frequency with the aim of establishing a desired relationship between the second frequency and the first frequency, the means for adjusting being responsive to the means for analysis and coupled to a second base station transmitting signals with the second frequency, located in a second radio telecommunications network.

23. (Previously Presented) A base station for a radio telecommunications network, the base station comprising:

a radio receiver for receiving signals having a first frequency from a reference base station located in a different radio telecommunication network;

an analysis apparatus for analysing the received signals to determine the first frequency;

a frequency setting unit responsive to the analysis apparatus for adjusting a second frequency with the aim of establishing a desired relationship between the second frequency and the first frequency and for sending a clock-setting signal for a clock; and
the clock for providing a clock signal for the base station, the clock being set according to the clock-setting signal from the frequency setting unit.

24. (Previously Presented) A network element for controlling base stations in a radio telecommunications network wherein base stations transmit at an accurately set frequency derived from a reference signal, the network element comprising:

a radio receiver for receiving signals having a first frequency from a first reference base station located in a first radio telecommunications network;
an analysis apparatus for analysing the received signals to determine the first frequency; and
a frequency setting unit responsive to the analysis apparatus and coupled to a second base station transmitting at a second frequency, located in a second radio telecommunications network, for adjusting the second frequency with the aim of establishing a desired relationship between the second frequency and the first frequency.

25. (Previously Presented) A network element according to claim 24 wherein the network element is part of the second telecommunications network.

26. (Previously Presented) A network element according to claim 24 wherein the network element is a Base Station Controller.

27. (Previously Presented) A synchronization unit for a radio telecommunications network wherein base stations transmit at an accurately set frequency derived from a reference signal, the synchronization unit comprising:

a radio receiver for receiving signals having a first frequency from a first reference base station located in a first radio telecommunication network,
an analysis apparatus for analysing the received signals to determine the first frequency; and

a connection for coupling the synchronization unit to a frequency setting unit responsive of adjusting the frequency of a second base station, located in a second radio telecommunications network.

28. (Previously Presented) A synchronization unit according to claim 27, where the synchronization unit is a mobile handset.

29. (Canceled)

30. (Previously Presented) A system of at least first and second radio telecommunications networks wherein each base station transmits signals at an accurately set frequency derived from a reference signal, the system comprising:

a radio receiver for receiving signals having a first frequency from a first reference base station located in a first radio telecommunications network;
an analysis apparatus for analysing the received signals to determine the first frequency; and

a frequency setting unit responsive to the analysis apparatus and coupled to a second base station transmitting at a second frequency, located in a second radio telecommunications network, for adjusting the second frequency with the aim of establishing a desired relationship between the second frequency and the first frequency.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.